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ABSTRACT

This module, developed by the Research Applications for Teaching (RAFT) project, was written to introduce the preservice teacher to the research base for effective teaching. Particular attention was given to the characteristics of teachers and teaching found in research literature to be associated with achievement and the development of positive attitudes in students. In completing the module, students reflect on the traits of their most effective teacher. They respond to a battery of instruments to determine whether their personal trait profiles are congruous with those identified with effective teachers. Students also observe the classroom performance of an effective teacher and record their observations on a research instrument. Students are introduced to the basic concepts of educational research and consider how that research on effective teachers is done. Instruction in this module is interactive in nature. It features much student discussion and active participation. (JD)

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WHAT RESEARCH SAYS ABOUT EFFECTIVE TEACHING

For

Promoting Achievement and Positive Attitudes in Students

An Instructional Module Prepared for Undergraduate

Teacher Education in the RAFT Project

Department of Curriculum and Instruction

College of Education

Mississippi State University

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Promoting Achievement and Positive Attitudes in Students

An Instructional Module Prepared for Undergraduate

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at Mississippi State University

by

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May 1986

HOW TO USE THIS MODULE

This module is planned to introduce the preservice teacher to the research base for effective teaching. Particular attention is given to the characteristics of teachers and teaching associated with the development of achievement and positive attitudes in students. Students reflect on the characteristics of their most effective teacher. They respond to a battery of instruments to determine whether their personal trait profiles are congruous with those identified with effective teachers. Students also observe the classroom performance of an effective teacher and record their observations on a research instrument. Students are introduced to the basic concepts of educational research and consider how that research is done.

Instruction in this first module is interactive in nature. It features much student discussion and active participation.

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Lesson 1: Characteristics of Effective Teachers Associated with the Development of Attitudes

Objectives:

The student will:

1. Identify four variables associated with research on effective teaching.

2. Describe the influence of the following variables upon the development of positive attitudes of students toward learning:
   A. Teacher efficacy
   B. High expectations
   C. Enthusiasm
   D. Flexibility
   E. Surgency
   F. Strong self-concept

3. Explain how the teacher communicates high expectations to students.

Assignment: The students will write a 2-3 paragraph essay describing the characteristics of their most effective teacher.

The students will complete A. L. Canfield's Learning Style Inventory (Form S-A). This material will be held for later discussion.

STUDIES IN TEACHER EFFECTIVENESS

What is effective teaching? What can teachers do that will make a difference in how well students learn, that will increase students' scores on achievement tests? What is the formula?

Students are worried about what kind of education they are receiving. Will their schooling prepare them to compete successfully for jobs that are available, or for better employment? Parents complain about their sons and daughters having high school diplomas but lacking competencies needed to hold a job. The public, in general, is calling for quality education. Legislators in many states, including Mississippi, have mandated competency exams for both students and beginning teachers. Pay increments of teachers throughout the United States are being based upon merit ratings or similar criteria.

In this day of consumer awareness, the school is being held accountable to produce results with taxpayer money. No longer can teachers say, "The student, his/her IQ, the environment, parents, the times are responsible for poor learning." Instead, we hear said, "The school, the teachers and administrators are responsible." Whether or not we accept this premise in its entirety, the situation remains that teachers are now more accountable for the quality of their instruction than in any time in the history of recorded education. The message is clear. "Teachers, clean up your act."

But how is effectiveness in teaching determined? Most classroom researchers have looked at four variables. They are as follows:

1. The personal and professional characteristics of teachers;
2. The context of the learning area such as the classroom

environment, the classroom space, numbers of students, student ability, and quality of home nurturing;

3. The products of learning, what happens as a result of teaching, what students have learned as measured by tests and how they feel about the knowledge areas.
4. The process of learning, the activities in which teachers and students participate.

Personal Characteristics of Teachers

Recent studies in teacher effectiveness show that the personal characteristics of teachers are related to the development of both attitudes and achievement in students; but teacher traits have been more closely identified with the development of attitudes than achievement on standardized tests. Under the current movement to improve achievement of students, as measured by standardized test scores, research efforts have shifted away from studies of teachers' personal behavior as a variable for study.

The literature since 1976 indicates a growing interest in research on teaching effectiveness as measured by student achievement. Most of the research, however, has been done at the elementary school level. The National Institute of Education (NIE) stimulated much of this achievement-based research by establishing as its primary goal "educational equity . . . a state of affairs in which race, sex, and socioeconomic status of a student will no longer predict educational achievement." NIE also provided large amounts of funding to support research on teaching variables having a relationship to student achievement.

Beginning teachers should be concerned with the development of appropriate affective behaviors and psychomotor skills in students, as well as the development of their cognitive behaviors. Hence, this study of research findings related to effective teaching will involve teachers' influence on concepts associated with positive attitudes in students toward school and learning, as well as school practices associated with fostering academic achievement.

Developing Positive Attitudes in Students

Teacher attitudes which reflect a sense of efficacy, high expectations, enthusiasm, flexibility, surgency, and a strong self-concept, have been identified by researchers as being positively related to the development of positive school related variables in students. Some data are available to link these teacher traits to academic achievement; but the pathway relationship between teacher attitudes, traits, and values appears to be more as follows:

Teacher characteristics $\longrightarrow$ Student attitudes $\longleftrightarrow$ Student achievement

There are those, however, who argue that positive attitudes are fostered by the student's first achieving at the appropriate level, i.e., achievement comes first. The two-way relationship between attitudes and achievement in the above paradigm indicates this reciprocal phenomena. Beginning teachers should be aware of the composition of profiles of personal traits identified with effective teachers. They should, further, do a self-assessment of their own characteristics to see how well they personally fit the emerging models of effective teachers. Teachers, however, should remember that teaching

is a very personal matter and should avoid evaluating themselves and their colleagues in stereotypical ways. Effective teaching is an interaction of the unique resources of individuals, students, and teachers, within the limitations of available environments and learning conditions, to foster desirable learning objectives.

A Sense of Efficacy Among Teachers

Efficacy: In school climates where achievement is fostered, a sense of efficacy exists among teachers. The teachers assume personal responsibility for helping students to learn. Teachers in these achievement-prone schools believe that what they do in classrooms is important and that what they do as teachers does make a difference in students' learnings and, consequently, in their lives. Teachers with a strong feeling of efficacy demonstrate a "can do" attitude toward overcoming problems. According to Brophy and Evertson (1976), such feelings of efficacy discriminate between more effective teachers and less effective ones.

According to Ashton, Webb, and Doda (1983), ethnographic observations in classrooms in their middle school study suggested that high- and low-efficacy teachers differed in their interactions with students, especially in their contacts with low-achieving students. Teachers with a high sense of efficacy seemed to employ a pattern of strategies that minimized negative effect, promoted an expectation of achievement, and provided a definition of the classroom situation characterized by warm interpersonal relationships and academic work. Teachers with a low sense of efficacy established a pattern of strategies that heightened negative effect and promoted an expectation

of failure for low-achieving students. Low-efficacy teachers classified students into competent and incompetent groups and defined classroom situations in terms of conflict rather than warm, supportive relationships. Academic achievement often was emphasized but only for those students whom the teacher defined as able and worthy of the teacher's attention.

Ashton and Webb (1986) reported significant positive relationships between teachers' personal perceptions of efficacy and their students' achievement. They found, however, that this relationship was stronger for achievement in some areas than in others. For example, measures of efficacy correlated higher in areas such as mathematics, language, and communications skills than in reading achievement. They have hypothesized a subject-specific relationship between teacher efficacy and achievement. In any case, Ashton and Webb asserted that teachers with high efficacy in their study had the same characteristics of effective junior high teachers described by Evertson, Anderson, Anderson, and Brophy (1980).

Teachers with a sense of efficacy also have an internal locus of control in personal traits; i.e., these teachers assume more responsibility for their own instructional situation than do their counterparts with more external controls. Externally controlled teachers in the Brophy and Evertson study tended to blame others and other factors, such as the cultural milieu, poor community/parent support, and inadequate teaching methods, for poor achievement in students. In contrast, teachers with internal control traits, rather than make excuses or "give up," tended to redouble their instructional

efforts, giving reluctant learners more attention by modifying their instructional activities and increasing instructional time with them.

Nearly all beginning teachers enter the profession with an attitude of strong efficacy. As they proceed with their careers, however, this attitude may degenerate into an attitude of hopelessness. Teachers can combat and prevent personal and professional burn-out by programming a pattern of personal achievement for themselves. This pattern can be reinforced by projection of realistic goals, acquisition of teaching skills needed for use in multicultural settings, and development of skills needed for serving as a change agent. Basic to these practices is the need for teachers to accept responsibility for change and the visualization of themselves as people who can make a difference in students' learnings. If teachers develop a genuine interest in students and find their challenge as teachers in the unique gifts and problems of individuals, they will tend to retain their optimism longer. Finally, the teacher must view his/her classroom as the place to begin change processes that may have unlimited effect on future outcomes of individuals and society.

Self-Concept. Affective development apparently proceeds in the same fashion as cognitive development. That is, initially, we learn about ourselves through concrete experiences and feedback from others. Gradually, we form a concept of what we are, what we can and cannot do, and, ultimately, our general worth. The initial self-view is highly dependent upon the quality of our life experiences. Children obtain their view of self from 'significant others,' those individuals who are personally admired and whose judgement is trusted. These significant

others are those upon whom youth 'bounce their ideas off' to see how they will be received. It is as if the significant others are mirrors in which youth see themselves reflected, with the attitudes and values of the significant others serving as the reflecting surface. Parents, teachers, and the members of the peer group, at one time or the other, serve as the significant others for youth as they mature. During adolescence, peers tend to be the dominant group, but adults such as parents and teachers also serve as stabilizing influences. This influence is enhanced if the parents and teachers are self-actualizing individuals.

If teachers have strong self-concepts, a psychological safety exists in their attitudes which reflects security and stability to adolescents whose self-concepts are in a state of constant flux. Teachers who are self-secure do not feel the need to compete with adolescents for control of a situation. Such teachers view themselves as facilitating rather than controlling student behavior. This facilitating role involves the following: (1) opening the students to new experiences; (2) planning with students; (3) helping students learn how to monitor their own behavior and learning; (4) helping students become responsible for themselves and their learning; and (5) being responsive to the guidance and suggestions of the students.

The success of teachers is a function of the teaching roles they adopt, among other things. But the increased emphasis in today's schools on subject matter as an end instead of a means forces many teachers to adopt roles in which they are seen by students as incongruent. This, as noted by Bills (1981), seriously impairs the

effectiveness of teachers. While enacting what may appear to be conflicting roles, teachers are helpful to students to the extent that they are seen by their students as (1) holding positive attitudes toward them, (2) being unconditional in the expression of these positive attitudes, (3) being empathetically understanding, and (4) being congruent. Congruence means saying and doing things that match what we are thinking and feeling. If teachers are congruent, they can be trusted. If teachers are seen as incongruent, then they cannot be trusted and cannot establish helping relationships.

Good, Biddle, and Brophy (1975) reported that self-concept in students is associated with achievement and hypothesized that student self-concept is enhanced by positive teacher self-concept. Ashton and Webb (1986) found that high professional self-esteem was associated with high efficacy among teachers. In brief, positive self-concepts in teachers appears to be a resource which frees these teachers to assume the supportive helping relationships needed for enhancing achievement in students, particularly the reluctant learners.

Growth toward self-actualization is a maturational process which appears to be developmental throughout young adulthood. Combs (1962) described this process for beginning teachers as "perceiving, behaving, becoming." Combs described the growth of self as follows:

> "The self-concept, we know, is learned. People learn who they are and what they are from the ways in which they have been treated by those who surround them in their process of growing up. This is what Sullivan called learning about self from the mirror of other people. People discover their self-concepts from the kinds of

experiences they have had with life--not from telling, but from experience. People develop feelings that they are liked, wanted, acceptable, and able from having been liked, wanted, accepted, and from having been successful. One learns that he is these things, not from being told so but only through the experience of being treated as though he were so. Here is the key to what must be done to produce more adequate people."

The accurate, realistic assessment of self resulting from acceptance makes possible the use of self as a dependable trustworthy instrument for achieving one's purposes. These people do not kid themselves. As a consequence, they are free to devote their energies to what is positive and constructive. What Combs is saying is that we perceive ourselves realistically as what we are, weighing our assets and our weak points. Then, we change our behavior to reflect the positive aspects of our self and downplay the negative perspective. As this behavior is practiced and reinforced by the positive regard of others, we become the mature individuals who are free to assume a sincere, helping role.

Beginning teachers need to conduct a realistic self-assessment, cataloging both their strong and weak points. Then, they should utilize their strengths to compensate in areas where they may be less strong. Beginning teachers should not be too critical of self and should give themselves opportunities to help others. The positive reinforcement received by teachers in teacher-student interactions should be catalytic in enhancing the personal growth of the teacher. In short, teaching, as viewed by Combs, is a process of becoming.

Flexibility. Research on the flexibility or adaptability of a

teacher has demonstrated correlates between this trait and affective teaching behavior. Flexibility in teachers relates to traits of creativity, imaginativeness, divergent abilities, originality, problem solving ability, initiation behaviors, and resourcefulness. Ryans (1960) discovered that teacher behavior of originality and stimulation related closely to pupil alertness and participation. Crocker (1974) found a psycometrically derived measure of flexibility to be the strongest predictor of student teachers' classroom performance.

Flanders (1970) reported a positive correlation between flexibility traits of teachers and students' attitudes and achievement. More flexible teachers appeared to be able to tailor techniques to the situation which emerges in an instructional sequence. More variability in teaching methodology and more use of varying classroom interaction patterns with students are performance characteristics identified by more flexible teachers. Innovative teachers have been identified by Corl (1970) as having dominant flexibility traits.

Flexibility in teaching is essential if teachers are to provide the broad repertoire of teaching strategies required to fit the diversity of learning styles encountered in the typical student population. Flexible teachers are also more adaptable to change and tend to develop creative problem-solving skills in others (Schalock, 1979).

In research findings, teacher flexibility has been found to be associated more with the development of problem-solving skills and critical thinking in students than in their achievement on regular tests of cognitive skills. Teachers with this trait appear to stimulate the same characteristic in students.

Enthusiasm. Studies of effective schools have shown that any school curriculum works better if it is implemented by enthusiastic teachers (Mackenzie, 1983). Enthusiasm for teaching is characterized by those with a long time personal commitment to teaching, rather than those who teach because of circumstance (Schalock, 1979).

Teacher enthusiasm appears to be correlated better with students' motivation and attitudes toward their school work than with achievement. McConnell (1977), for example, found teacher enthusiasm to be positively associated with attitudes toward algebra but not significantly related to student achievement as measured by a standardized test.

Enthusiasm is a personal trait which is considered in the formal evaluation of teachers. Teachers communicate enthusiasm to their students and co-workers in a number of verbal and nonverbal ways. Enthusiasm is projected through variations in voice inflections, use of appropriate hand gestures, leaning of the body toward the individuals involved, and through use of specific verbal cues. Enthusiasm is reflected through active involvement of the teacher.

Effective teachers demonstrate enthusiasm toward both what is being learned and the learner. Such teachers enjoy sharing ideas and observing others learn. It is doubtful that first grade teachers could always wax enthusiastically about a story they have read over 100 times unless they enjoy interacting with the children. Students are stimulated by the enthusiasm generated by a teacher actively involved in the learning process. To be effective in influencing the attitudes of students, teachers' enthusiasm must be sincere and continuously regenerating.

To be enthusiastic teachers, individuals must let their natural curiosity develop. They must read broadly and travel as much as possible. They must take every opportunity to learn new experiences, to eat new foods, and to participate in a variety of nonschool experiences. Teachers who work in a busy school schedule and then go home to grade papers all evening have very little enthusiasm to offer in their teaching. To paraphrase Auntie Mame (in Patrick Dennis's book by the same name), in an earlier generation, "Life is a banquet and some poor teachers are starving to death." How can such deprived teachers stimulate growth of ideas in a stimulating way?

Teacher Activity or Surgency. Cohen (1984) demonstrated that active teacher involvement in the learning process is essential if learning is to be maximized. In a carefully controlled study in science, he found that use of well planned curriculum materials with students involved in the active manipulation of equipment is not enough to promote the development of cognitive skills. Teacher involvement requires moving around the classroom and engaging individuals and small groups of students in interactions involving questioning, listening, and analyzing behaviors on the part of students and teachers. Such activity involves the use of considerable teacher energy. Hence, the teacher's having a high energy level is a prerequisite for effective teaching. Teachers who sit at their desks and lounge on podiums communicate a spirit of inactivity and noninvolvement. These practices encourage similar attitudes in students. Handley and Bledsoe (1968) reported that influential science teachers, as contrasted to a norm group, scored significantly higher on surgency (high energy) traits. Influential

science teachers, as defined in this study, were those who had been consistently nominated by scholarship and award winning high school students as having strong influence in their career development.

High Expectations. Differential teacher treatment concerning the degree of expectations communicated to different students contributes significantly to student achievement and attitudes. Several reviews of research on teacher expectation effects confirm that some teachers behave differentially toward low achievers in ways that communicate that less is expected of them (Brophy, 1982; Brophy & Good, 1974; Cooper, 1979).

Good (1983) summarized teachers' behavior in which they gave differential treatment to high and low achievers. Slow students were seated farther from the teachers in classrooms and were called on less frequently to answer questions. Teachers waited shorter periods of time for low achievers to answer questions and offered them more praise for marginal or inadequate answers. Low achievers, however, were less praised for successful responses. Low performers were also more often treated as a group, not individuals; smiled at less; made eye contact with less. Finally, less work effort was demanded of lower achieving students, as contrasted with their higher achieving classmates.

Teachers also react to gender stereotypes in communications with students, particularly in science and mathematics classes. Morse and Handley (1985), for example, found that science teachers gave boys more feedback than girls in class interactions. This feedback tended to prolong the amount of interaction between teachers and students. Such prolongation appeared to provide the boys with more support for their

responses, giving them more opportunity to answer questions correctly. Such differential treatment of male and female adolescents by teachers was correlated with students' attitudes toward science; i.e., those students (generally male) receiving more teacher support and higher expectations in classroom interactions had more positive attitudes toward science and participated in science activities more actively. By their differential treatment, teachers communicated to girls that science is an activity more for boys than girls. In turn, girls responded by not taking as much interest in science activities as did their male counterparts.

Research shows that high expectations for all students is a common element in the characteristics of effective schools. The expectations of teachers and administrators can permeate a school, creating a school climate of high expectations for student performance. This climate of expectation is also transmitted to the peer group in the effective school setting. If high expectations for achievement exist in the peer group, students take more pride in their work and see themselves as individuals who can do well. The work of Rutter and others (1979) makes this point. Data from these studies revealed that students had better academic success in schools where teachers expressed high expectations; and, furthermore, the beneficial effects of high expectations were also observed in areas other than academic achievement, such as better behavior, better attendance, and less delinquency. According to Rutter and others, if students are trusted to act with maturity and responsibility, they work hard to fulfill these expectations.

What can the teacher do to reinforce a climate of high expectations

in the classroom? First, expectations relative to operational rules and the quality of work expected are communicated to students in detail at the beginning of the term and are reinforced by the teacher from time to time. Reasonable work standards are established, often with the help of students, and are upheld in a fair, equitable manner. Students know that they will receive assistance needed to complete their work, but that they are to make their best personal effort also. In their interactions with individuals and the total group, effective teachers also speak positively to reinforce expectations. Accomplishments are recognized and areas needing improvement are identified in a way that respects the individual. Teachers work carefully to control the degree of demand offered. Some demand is necessary to stimulate student effort, while too much demand is debilitating and counter-productive.

Second, the quality of the teacher's performance in the classroom reflects the level of work expected of students. Teachers who expect their students to do well prepare their own work well. Such teachers give careful directions for assignments and promptly attend to the evaluation of written assignments so that papers can be quickly returned to students.

Third, effective teachers monitor the type and quality of classroom interactions occurring during their instructional sequences. This is done by making videotapes of the interactions and determining whether they are unconsciously delivering different expectations for individuals in communications similar to those identified by Good (1983). In general, effective teachers must give students equal opportunity in real communications.

In summary, teacher expectation is a key variable identified in both the research on effective teachers and schools as associated with both attitudinal and achievement variables in students' work. This influence is communicated by teachers in very subtle ways through both verbal and nonverbal communication, as well as through overt practices. Expectation is a climate that permeates schools where students do well in all their activities and exhibit responsibility for working in an orderly manner and avoiding truancy.

Lesson 2:

Variables Associated with Improving Achievement of Students

Objectives:

The student will:

1. Recognize that maximizing learning time is the variable best correlated with improvement of achievement in students.

2. Identify the meaning of the following terms:
   A. Allotted time
   B. Engaged time
   C. Success ratio

3. Recognize that effective classroom management practices vary from subject area to subject area.

4. Describe effective interactive teaching strategies for improving achievement.
   A. Flanders' types of classroom talk
   B. Wait time as described by Mary Budd Rowe
   C. Influence of questioning

5. Differentiate between intrinsic and extrinsic reward systems in the classroom.

6. Describe Page's experiments on teacher comments on papers.

7. Summarize conditions for delivering praise effectively to students.

Assignments:

The student will:

1. Observe a classroom teacher perform and plot time-on-task for her students.

2. Describe reward systems demonstrated by a teacher in a class.

3. Describe the frequency of questions asked by a teacher in 30 minutes which would be classified as convergent or divergent.

PROMOTING ACHIEVEMENT IN STUDENTS

The School and Teaching Effectiveness

In addition to the personal characteristics of teachers, the school, itself, provides academic climates which either promote or hinder the academic well-being of students. Research tells us that the school does make a difference. In 1979, Rutter and others published a comprehensive report on parental, school, teacher, and ecological factors in schools in London, England. Rutter, in disagreement with the Coleman (1966) report, concluded that schools do make a difference. The Rutter study found that academic emphasis, teacher-student interactions, incentives and rewards all make a difference in school outcomes. Levels of attendance, student behavior in school, and academic attainment were different from school to school. Rutter and his colleagues concluded that these differences were not a product only of differential student abilities or backgrounds but were also a function of the unique climates of individual schools.

In reviewing research on effective schools, Mackenzie (1983) outlined the dimensions of effective schools. His figure shows the leadership dimensions, efficacy dimensions, and efficiency dimensions of productive schools. In addition, core elements or central points of emphasis are given, as well as facilitating elements, the specific conditions that make it easier to implement the core principles of effective schooling. These dimensions of effective schooling should be reviewed carefully by teachers since the individual teacher both operates within the total school climate and makes a contribution to the overall climate. In creating an academically stimulating school

climate, the teacher not only is responsible for the learning conditions of his/her classroom but also cooperates with other school personnel within the overall organizational framework of the school to create an environment that is supportive of individuals and, at the same time, delivers a clear message of achievement expectation to students. The administrative staff, headed by the principal, is expected to characterize the leadership dimensions of an effective school; but the facilitation of positive leadership traits in a school environment is a responsibility shared by both teachers and administrators.

Teacher Competencies Associated with Effective Teaching

Evertson, Hawley, and Zlotnik (1984), in their review of teacher preparation programs, identified five core teaching skills (CTS) which comprise a commonality of professional practices that can be adapted to specific teaching situations. These teaching practices have been identified in research studies as being associated with promoting student achievement. Successful teachers, according to Evertson and associates, will be able to:

1. Maximize academic learning time of students.
2. Manage and organize the classroom.
3. Utilize effective interactive teaching strategies.
4. Communicate high expectations for student performance.
5. Reward student performance.

Maximizing Academic Learning Time. Fisher, Berliner, and others (1978) defined a concept of academic learning time (ALT) which has been found to be positively correlated with student achievement. Academic learning time is the amount of time students spend engaged in academic

tasks that they can perform at high success rates. This concept, as reported by Stallings (1980), clearly goes beyond a simplistic time-on-task relationship identified earlier by other researchers. It involves (1) allotted time, the time given to students to work on academic assignments; (2) engaged time, the percentage of allocated time in which students are actively engaged in these tasks; and (3) student success, the degree to which students can master the task and receive satisfaction from work. The last point, student success, reflects the quality of work assignments in which students are engaged, as well as the time spent in study; i.e., active student engagement in trivial or meaningless tasks does not promote achievement. The use of available time, according to Stallings, appears more important than the actual amount of time available for instruction. The beginning teacher, to teach effectively, must be able to assess the "on task" behavior of students in the classroom and also develop strategies for promoting higher ranges of time-on-task behaviors. To accomplish these objectives, beginning teachers need to work hard to develop competency in instructional planning and classroom management.

Management and Organization of the Classroom. The way teachers organize instruction in various subject areas shows a clear relationship to student outcomes. Some organizational problems are unique to teachers in specific areas. Others have commonalities for all teachers.

Evertson and others (1980) analyzed the responses of 39 English teachers and 19 math teachers in a study of junior high schools in Texas. Teacher beliefs, expectations, and assumptions about teaching and instructional practices were noted. Student outcomes were measured

by an achievement test, and student ratings of teachers were collected. The investigators found that teachers of high achieving math students had the following traits:

1. They ranked high in general likability.
2. They took personal responsibility for management and discipline in their classes.
3. They communicated to students the rules of operation and expectations in their class.

Effective English teachers were likely to use fairly traditional teaching methods. Their teaching effectiveness appeared to vary more with student ability level than did effective instruction in mathematics. Effective English teachers usually:

1. Used a whole class approach.
2. Stressed punctuation and capitalization.
3. Demanded that students pay attention to instruction and make up missed work.

Effective math and English teachers were self-confident and self-reliant in dealing with behavioral problems and managing the classroom. Students held trusting, caring, professional teachers in high esteem but did not necessarily achieve more in these teachers' classrooms.

Direct instruction methods were effective in math, less effective in English (Rosenshine, 1979). Evertson (1979) suggested that seventh and eighth grade English classes have numerous and variable instructional goals (i.e., communication skills, literature appreciation, composition). Basic skill mastery at this level of instruction is not the primary goal in English as it is in math classes. English

objectives are not easily pursued with a direct instructional approach; mastery of basic math skills is.

Evertson used the Texas data to determine the relationship between teacher behavior, student achievement, and student attitudes. She concluded that high achieving, high attitude classes showed good organization, a high proportion of time spent on instructional activity and task-oriented instruction. Low achievement, low attitude classes were characterized as chaotic, unstructured, and less task-oriented.

Borich and other (1979) have commented on the relationship of classroom management to teaching effectiveness. They concluded that direct instruction facilitates learning at the primary or lower levels, while less structured teaching is important for creativity and higher level thinking and learning. Students should have more freedom when creativity and critical thinking are desired goals. Borich suggested that some of this freedom can be obtained by structuring tasks so that students can apply rules and directions. For example, open-ended exercises can be given where students initially use direct application of learned concepts in problem-solving. Then, students can be given directions in planning new strategies or the implementation of further activities to find out more about the subject of interest.

In his review of research related to problems of beginning teachers, Veenman (1984) identified 24 perceived problems of which at least 10 were associated with management and organizational problems in teaching. Classroom discipline was the most seriously perceived problem. This same problem has been consistently identified in follow-up studies of beginning teachers (Handley, 1981). Other problems of beginning

teachers appeared to be associated with teaching skills relative to structuring of physical space (Brophy, 1983; Evertson & Emmer, 1982), grouping (Evertson, Sanford, & Emmer, 1981), and planning lessons for interactive teaching (Shavelson & Stern, 1981).

Interactive Teaching Strategies. Teacher interaction with students in the learning process is the key to development of academic achievement. Interactive teaching practices which appear to make a difference in achievement are doing daily reviews and reteaching when needed, presenting an overview for new content skills, and proceeding in small steps at a rapid pace. Asking a high frequency of well designed questions, providing feedback with appropriate wait time (Rowe, 1976), and giving positive response feedback with appropriate corrections are all interactive patterns in which teachers' expectations are reflected.

Student-teacher interactions related to questioning and responses appear to be core activities associated with the development of thinking at high order levels. Questions probably are the major tools in teachers' bag of tricks for developing thinking skills associated with analysis, synthesis, and evaluation of concepts.

Studies of teachers (Amidon & Flanders, 1963) have demonstrated that classroom interaction patterns of inexperienced teachers are characterized by teacher dominance: a telling, explaining, summarizing, evaluating. Research by Brophy (1981), Cohen (1984), and others (Rosenshine, 1983; Soar & Soar, 1983) has shown that teachers can be trained to perform desired interactive behaviors. Crooks (1986) showed that the use of videotaped recordings of preservice teachers' classroom performances is one of the most effective methods for teaching these

skills.

Reward of Student Performance. Intrinsic and extrinsic reward systems motivate and modify human behavior in all endeavors. In schooling, extrinsic rewards are given in the assignment of grades, giving of awards, administration of teacher praise, and other special recognitions. Intrinsic rewards, in contrast, are those self-generated by the students including the development of a sense of accomplishment, intellectual challenge, or esthetic appeal. Extrinsic reward systems which recognize true achievement and are delivered in a fair, sincere manner have more chance of becoming internalized than more superficial ones.

Teachers play a dominant role in the delivery of effective reward systems. Page (1961) experimented with variation in teacher comments on graded tests and demonstrated that significant differences in achievement can be elicited from students in response to that variable. All students were given a regular teacher-made test. After the tests were graded, they were marked in the traditional fashion with the appropriate grade letter, A, B, C, D, or F. Then, the papers were randomly assigned to three groups: (1) No Comment; (2) Free Comment; and (3) Specified Comments. The teacher returned all test papers with the numerical score and letter grade, as earned. No Comment students received nothing else. Free Comment students received, in addition, whatever comment the teacher might feel it desirable to make. Teachers were instructed: "Write anything that occurs to you in the circumstances. There is not any 'right or wrong' comment for this study. A comment is right for the study if it conforms with your

feelings and practices." Specified Comment students, regardless of teacher or student differences, all received comments designated in advance for each letter grade, as follows:

A. Excellent! Keep it up.

B. Good work. Keep at it.

C. Perhaps try to do still better?

D. Let's bring this up.

F. Let's raise this grade!

To determine the effect of varying the verbal reward system administered in responding to the papers, achievement for the students on the next regular test given was observed. It was found that Free Comment students achieved higher scores than Specified Comment students, and Specified Comments did better than No Comments. When the secondary teacher takes the time and trouble to write comments (believed to be encouraging) on student papers, these apparently have a measurable and potent effect upon student effort which is demonstrated in improved achievement.

Page's experiment is a classical example of how administration of reward systems by teachers can influence student achievement. Other teacher influences than this are not quite so evident but are just as real. One other reward system with great value for stimulating intrinsic motivation is effective use of praise.

Use of Praise. An important reward system employed in teaching is the use of teacher praise. Recent research provides much needed information regarding this exchange between teacher and student. For example, Brophy (1981) reviewed a wide range of literature on teacher

praise, noting that such praise has different purposes and meanings in different contexts. He concluded that the quality of teacher praise is more important than its frequency. He offered the following guidelines for delivering effective praise:

*It is delivered contingently.

*It specifies the particulars of the accomplishment.

*It shows spontaneity, variety, and other signs of credibility.

*It rewards attainment of specified performance criteria.

*It provides information to students about the value of their accomplishments.

*It orients students toward better appreciation of their own behavior.

*It is given in recognition of noteworthy effort on a difficult task.

*It attributes success to effort and ability, implying that similar successes can be expected later.

Effective teachers are also careful about choosing the time and place for the delivery of praise to adolescents. They find a quiet time when the student can be praised privately since praise in front of the group may be a double-edged sword. Spontaneous praise in the classroom is very effective if it is an occasional happening and if the praise is truly merited. That practice, however, may slow down a discussion that is going full-speed. When a student gives a good response and the teacher makes a big occasion of it, for example, other students in the class may say, "My goodness! I do not have any answers as good as that. I will keep quiet." Or they may say, "I don't want him/her (the

teacher) paying that much attention to me. What will my friends think?" Adolescents, in general, would do or not do most anything to keep group attention away from themselves. Overt praise from the teacher in some circumstances may do more harm than good.

On the other hand, elementary teachers pass out smiley faces with profit. Praise in the group context is a supportive, useful reward system for young children and for handicapped youth.

Reward systems are very useful for promoting achievement, if employed sincerely and with care. They are very enigmatic, however, in that they have different meanings in different contexts. Beginning teachers need to find out what works best for them; i.e., how can they express their approval in a manner that is acceptable to the group?

Lesson 3: Who Am I?
What Traits Do I Carry To Teaching?

Objective:

The preservice teacher will:

Assess his/her own personal traits relative to those observed in effective teachers. This assessment will include response to instruments developed to measure personal traits of flexibility, surgency, self-concept, efficacy/expectation traits, learning styles, and locus of control.

Activities:

1. As a homework assignment, students will respond to the following instruments:

   A. Handley and Thomson's Personal Trait Inventory.
   B. Canfield's Learning Style Inventory.
   C. Rotter's Locus of Control.
   D. Handley and Thomson's Myself as a Teacher.
   E. Rose and Medway's Teacher Locus of Control (TLC)

2. Students will examine test results and then write a paper summarizing their personal traits relative to those identified with effective teaching.

3. Instructor will briefly discuss the theoretical rationale on which the constructs of the above instruments are based.

Myself as a Teacher

Directions: Read each statement carefully. Decide which response best describes your characteristics as a teacher. If you have not taught already, decide which response you expect to describe your characteristics as a teacher. Mark the appropriate response on the answer sheet provided.

1. How do you rate yourself in school ability as compared with your close friends?
   a. I am the best.
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am the poorest.

2. How do you rate yourself in your ability to teach as compared with others with your level of training and experience?
   a. I am the best
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am the poorest.

3. How do you rate yourself in your ability to teach as compared with the best teachers you had as a student in elementary or high school studies?
   a. I am the best.
   b. I am above average.
   c. I am average.
   d. I am below average.
   e. I am the poorest.

4. If you attended graduate school, where do you think you would rank academically in your class?
   a. Among the best
   b. Above average
   c. Average
   d. Below average
   e. Among the poorest

5. In order to become a college or university professor, three or more years of graduate study is necessary. How likely do you think it is that you could complete such advanced work?
   a. Very likely
   b. Somewhat likely
   c. Not sure either way
   d. Unlikely
   e. Most unlikely

6. Forget for a moment how others grade your work. In your opinion, how good do you think your teaching is?
   a. My work is excellent.
   b. My work is good.
   c. My work is average.
   d. My work is below average.
   e. My work is much below average.

7. How important is it to you to do better than others in your school teaching?
   a. Very important
   b. Important
   c. Neither important nor not important
   d. Not particularly important
   e. Doesn't matter to me at all

8. How do you rate yourself in your ability to motivate students for learning?
   a. Among the best
   b. Above average
   c. Average
   d. Below average
   e. Among the poorest

9. How do you rate yourself in your ability to plan instruction appropriate for the students you teach?
   a. Among the best
   b. Above average
   c. Average
   d. Below average
   e. Among the poorest

10. How do you rate yourself in your ability to challenge advanced students to work up to their potential achievement?
    a. Among the best
    b. Above average
    c. Average
    d. Below average
    e. Among the poorest

11. How do you rate yourself in your ability to assist slow learners to achieve better?
    a. Among the best
    b. Above average
    c. Average
    d. Below average
    e. Among the poorest

13. How do you rate your ability to help students develop understanding, knowledge, and skills?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

14. How do you rate your sensitivity to individual differences?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

15. How do you rate your ability to maintain good classroom discipline?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

16. How do you rate your ability to develop efficient study habits in students?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

17. How do you rate your skills in oral and written communication as a teacher?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

18. Do you think that your personality and personal traits are appropriate to serve as a model for students.
a. Yes, definitely
b. Yes, probably
c. Not sure either way
d. Probably not
e. No

19. Among other teachers you know, how do you rate yourself on your abilities to utilize a variety of teaching techniques and methods?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

20. How do you rate yourself in your mastery of the subject matter needed for instruction in the area of your teaching assignment?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

21. How likely is it that you will still be teaching five years from now?
a. Yes, definitely
b. Yes, probably
c. Not sure either way
d. Probably not
e. No

22. If you were teaching in a school and your principal chose a special committee of five teachers to work up a plan for improving instruction, how likely would it be that he/she would choose you as a member of that committee?
a. Yes, definitely
b. Yes, probably
c. Not sure either way
d. Probably not
e. No

23. If the students were choosing a chaperone for a party after school, how likely would it be that they would choose you to oversee the event?
a. Yes, definitely
b. Yes, probably
c. Not sure either way
d. Probably not
e. No

24. If a student had a problem at home and needed to talk about it with a teacher, how likely do you think it is that you would be the teacher chosen by that student?
a. Yes, definitely
b. Yes, probably
c. Not sure either way
d. Probably not
e. No

24. How do you rate yourself on the practice of allowing students to participate in the planning of how they will study a topic from their course of study?
a. I would always ask them to help plan.
b. I would usually ask them to help plan.
c. I would ask them to help about as often as not.
d. I would seldom ask them to help plan.

25. How interesting are your classes -- or how interesting do you think your classes will be?
a. Very interesting
b. Interesting
c. Not sure either way
d. Boring
e. Very boring

26. How well do you think you are prepared to be a teacher?
a. Very well prepared
b. Prepared
c. Uncertain
d. Somewhat unprepared
e. Unprepared

27. How do you rate yourself in understanding the needs of children?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

28. As compared to other teachers, how do you evaluate your relationship with principals?
a. I am the best.
b. I am above average.
c. I am average.
d. I am below average.
e. I am the poorest.

29. As compared to other teachers, how do you evaluate your relationship with parents?
a. I am the best.
b. I am above average.
c. I am average.
d. I am below average.
e. I am the poorest.

30. Do you think it is likely that you will be recognized as a "star" teacher (best in school) before you have taught 10 years?
a. Yes, definitely
b. Yes, probably
c. Not sure either way
d. Probably not
e. No

31. If you rated yourself on enthusiasm for teaching, how would you rate yourself?
a. I am one of the most enthusiastic.
b. I am above average in enthusiasm.
c. I am average in enthusiasm.
d. I am below average in enthusiasm.
e. I am the poorest in enthusiasm.

32. How organized are you in planning your work?
a. Among the best
b. Above average
c. Average
d. Below average
e. Among the poorest

Personal Trait Inventory

Directions:

Below are listed 62 adjectives which people might use to describe their personal traits. Consider each adjective carefully and evaluate how well it describes you personally.

Use the following 5-point scale for this evaluation by marking (X) on the appropriate blank which describes how often the adjective describes your behavior: (1) always; (2) very often; (3) sometimes; (4) hardly ever; and (5) never.

	(1) Always	(2) Very Often	(3) Sometimes	(4) Hardly Ever	(5) Never
1. absentminded	____	____	____	____	____
2. active	____	____	____	____	____
3. adaptable	____	____	____	____	____
4. adventurous	____	____	____	____	____
5. alert	____	____	____	____	____
6. aloof	____	____	____	____	____
7. ambitious	____	____	____	____	____
8. argumentative	____	____	____	____	____
9. artistic	____	____	____	____	____
10. assertive	____	____	____	____	____
11. autocratic	____	____	____	____	____
12. capable	____	____	____	____	____
13. careless	____	____	____	____	____
14. changeable	____	____	____	____	____
15. clear-thinking	____	____	____	____	____
16. clever	____	____	____	____	____

	(1) Always	(2) Very Often	(3) Sometimes	(4) Hardly Ever	(5) Never
17. complicated	____	____	____	____	____
18. confident	____	____	____	____	____
19. curious	____	____	____	____	____
20. cynical	____	____	____	____	____
21. demanding	____	____	____	____	____
22. disorderly	____	____	____	____	____
23. dissatisfied	____	____	____	____	____
24. distractible	____	____	____	____	____
25. egotistical	____	____	____	____	____
26. energetic	____	____	____	____	____
27. enthusiastic	____	____	____	____	____
28. flexible	____	____	____	____	____
29. humorous	____	____	____	____	____
30. hurried	____	____	____	____	____
31. idealistic	____	____	____	____	____
32. imaginative	____	____	____	____	____
33. impulsive	____	____	____	____	____
34. independent	____	____	____	____	____
35. individualistic	____	____	____	____	____
36. industrious	____	____	____	____	____
37. ingenious	____	____	____	____	____
38. insightful	____	____	____	____	____
39. intelligent	____	____	____	____	____
40. interests wide	____	____	____	____	____

	(1) Always	(2) Very Often	(3) Sometimes	(4) Hardly Ever	(5) Never
41. intolerant	____	____	____	____	____
42. inventive	____	____	____	____	____
43. logical	____	____	____	____	____
44. moody	____	____	____	____	____
45. original	____	____	____	____	____
46. outspoken	____	____	____	____	____
47. quick	____	____	____	____	____
48. rational	____	____	____	____	____
49. rebellious	____	____	____	____	____
50. reflective	____	____	____	____	____
51. reserved	____	____	____	____	____
52. resourceful	____	____	____	____	____
53. restless	____	____	____	____	____
54. sarcastic	____	____	____	____	____
55. self-centered	____	____	____	____	____
56. sensitive	____	____	____	____	____
57. serious	____	____	____	____	____
58. sharp-witted	____	____	____	____	____
59. spontaneous	____	____	____	____	____
60. tactless	____	____	____	____	____
61. unconventional	____	____	____	____	____
62. versatile	____	____	____	____	____

Lesson 4: Research Methodology on Effective Teaching

Objectives:

The preservice teacher will:

1. Describe how research on effective teaching is done.
2. Identify trends in research on effective teaching.
3. Critique effectively a published research report on effective teaching practices.
4. Identify the limitations of the body of research literature on effective teaching.

Activity

1. Read and write a critique of E. B. Page. (1958). Teacher comments and student performance: A seventy-four classroom experiment in motivation. Journal of Educational Psychology, 49, 173-181.
2. Read Handley, H. A Brief Guide to Research. 6 p.

A BRIEF GUIDE TO RESEARCH

THE NATURE OF RESEARCH

The aim of scientific inquiry is to add to understanding or to establish general principles about the operation of the empirical world. Research is the bringing together of theory and data toward that end. Empirical research draws on pure scientific speculation (the development of logical theory) and on knowledge of prior research; it can lead to practical problem-solving. As used in this brief guide, the term "research" will be used to mean the activities that take place between theory and applied problem-solving.

Empirical research can answer many types of questions but is quite unsuited to others. Since it is concerned with what is, it cannot say what should be, though, of course, research results are often used in normative arguments. Since, to be valid, it must state propositions in such a way that they can be disproved, it cannot be used to promote a particular position. Finally, some empirical questions are not researchable: because social science methods are currently unable to generate technically solid data about them; because to probe such questions would harm respondents or invade individual rights; or because of some practical or ethical reasons.

To judge whether an issue is appropriate to research and significant in research terms, it is useful to ask several questions:

*What is it that we want to find out? What question do we want to answer? (Getting clear on this issue is the first step of research.)

*What reason is there to think that this question is important to

theory or to practice? How much do we know about it already, and what more do we need to know?

*Is this the kind of question for which research can find an answer?

SOME GENERAL CRITERIA FOR RESEARCH

Once a researchable question has been identified, an appropriate approach to the topic can be selected. Whatever the approach, research that is acceptable by scientific standards is expected to meet certain criteria.

*Conceptual basis. Every research project should have a supporting logic based upon a clearly presented conceptualization.

*Objectivity. Research questions, methods of data collection, and analysis must be set up in a way that does not prestructure the findings so that only one outcome is possible. Appropriate guards against bias vary from method to method, but every method has them.

*Validity. Measures utilized in the research must be demonstrably accurate indicators of the phenomena they purport to measure.

*Reliability. Measures should be stable, not greatly affected by minor differences in testing conditions, subject's mood, and the like.

*Generalizability. Since science is interested in establishing general principles, research that is applicable to the entire population is desirable. Generalizability can be obtained by careful sampling procedures. Where representative sampling is not used, or where research is intentionally restricted to some segment of the population or some particular place, this should be made clear, and findings should be restricted appropriately; i.e.,

limitations should be defined in the parameters of the research.

KINDS OF EMPIRICAL RESEARCH, THEIR USE AND MISUSE

Exploratory research: to learn how to approach a question. Sometimes very little is known about the facts in some topic area, and there is little existing theory that could guide inquiry. Under these circumstances, exploratory research is appropriate. Exploratory research often focuses on a single case or site, but it should have a purpose beyond the documentation of information about the site: for example, to clarify concepts, to formulate a problem for more precise investigation, or to explore the feasibility of a particular research approach. Exploratory research uses methods that do not prestructure the data. It should, however, be guided by conceptual frameworks that will help the investigators make sense of the rich, varied data that result. There are well-developed procedures for this kind of research. It is not just a matter of going into a site, research in hand.

Descriptive research: to establish facts. Questions that are matters of fact can be addressed through descriptive research. The intent of descriptive research is to establish an accurate count from a population, or from a representative sample, or as part of an exploratory effort. Except in the latter instance, a single site is generally not enough. Like other kinds, descriptive research should rest on some conceptual basis; there should be some reason for wanting to know the facts concerned. If one's reason for wanting to know certain facts lies in their relation to certain other facts, descriptive research alone will not do the job. A relational design is called for. If facts are already available and there is no clear need for greater

precision or more detail, further descriptive research probably is not warranted.

Classification: research to sort, label, and compare. Classification can summarize knowledge and highlight important differences; it can also clarify understanding and lead to explanation. In order to be useful, though, it requires a solid conceptual basis. This type of research concentrates on the use rather than the collection of data (though if data are not available, description may have to be the first stage of a classification project). It establishes variables, but does not treat them as independent or dependent (see below).

Comparative research: testing for predicted differences. Good comparative research predicts differences as precisely as possible, and then tests for them. The differences in question may be inherent in population differences or created by some experimental treatment. In either case, the reasons for expecting differences and the nature of the expected differences should be spelled out in advance in the form of hypotheses. Most of the experimental research literature is of this nature, and there is a well-developed body of criteria for experimental design.

Research to test relations among variables. Research of this type seeks to discover the relation between one thing (the independent variable) and another (the dependent variable). In a logical sense, the independent variable is the precursor or antecedent, and the dependent is the emergent or resultant variable. This kind of research requires having a clear conceptualization of the variables to be explored and of their interconnection or relationship. As in comparative research, the

researcher should be able to state hypotheses in advance based on a logically developed conceptualization of the problem. Statistical techniques such as correlation and regression are generally used in relational analyses, and investigators should be familiar with their data requirements and with means of dealing with data problems. Measurement and statistics being what they are, it is possible to find association between almost any pair of variables, but it does not necessarily aid understanding. Understanding comes from conceiving of why the variables should be connected, and that is the hard part which many researchers neglect.

Causal research. Association does not imply a causal relationship. Causality can be teased from either difference tests or tests of association if appropriate conditions are met. The statistics required for causal inference are exceedingly complex and call for considerable knowledge and experience in such analysis.

How research on teacher effectiveness is done. Research on teacher effectiveness is usually done either by use of the comparative or associational models. In comparative studies, a group of effective teachers is usually identified by some sort of external criteria. A comparison group of less effective teachers or a norm group of teachers is also selected. The characteristics of these two groups of teachers are compared to determine how the effective teachers differ from the less effective ones. In the associational studies, students are given an achievement test. Then the characteristics of their teachers are related (correlated) to students' scores. By this means, the characteristics of teachers who score higher on achievement tests can be

identified.

An example of a comparative study done to determine the characteristics of effective teachers was that done by Handley (1966). A group of 50 teachers who had been nominated by award winning science students as highly influential in their studies were identified. A comparison group of randomly selected science teachers were also identified. Both groups were administered a personality test. The two groups were compared on the 16 personality traits measured by the psychometric instrument. The influential teachers, as contrasted with the other group, were found to be more imaginative, self-sufficient, independent, and abstract-thinking. No causal inference was inferred; i.e., no inference was given that these teachers were influential because of these traits. The study stated that these traits were characteristic of the influential teachers studied.

An example of a correlational type of study was that recently completed by Harpole (1986) where she administered a physics test to students in 30 teachers' classes in Mississippi. Then, she correlated these students' scores with variables such as their teacher's educational level, amount of training in science, level of experience, gender, and age. She found, among other things, that students' achievement was related to the amount of training their teachers had received.

It is noted that both of these examples of teacher effectiveness studies were not causal in nature; i.e., the researchers could not state beyond doubt that the teachers were effective because of having the traits identified. To establish that causality, the researcher would

need a condition where he/she would have control over the variables. For example, a researcher would need two groups of teachers (randomly selected), one of which was given distinctly more training in science than the other. The group to receive the more training would need to be randomly selected. Then, after they had been trained, the achievement of students for these two groups of teachers would need to be compared. Of course, researchers cannot interfere this much in the lives of people to establish causal-type relationships. Researchers simply have to plan experiments around existing conditions.

WORKSHEET 1

Critique Outline

Assignment: Write a three page critique of E. B. Page's article on the effect of teacher's comments on students' classroom performance. Organize the report according to the outline below.

I. Problem. What was the problem of the study? What hypotheses were tested or questions were answered? Were the problem statement, hypotheses/questions clearly stated?

II. Subjects. Who were the subjects of the study? How were they selected?

III. Methodology. Was the methodology or treatments for the research clearly described? Could another person replicate the study from the information given?

IV. Collection of Data. What type of data were collected? How were they collected?

V. Methods of Data Analysis. How were the data analyzed?

VI. Results. What were the major findings in the study? What are their implications for educational practice?

VII. Evaluations of Report. Were there questions which you needed answering after reading the report? What were the strong points of the study? What improvements needed to be made in the work?

Lesson 5: Observing a Classroom Performance

Objective:

The preservice teacher will:

1. Interpret the meaning of adjectives used to describe teacher behavior on a modified form of Ryans' Classroom Observation Record.

2. Rate the classroom characteristics of a teacher whose performance is observed through use of the COR.

3. Determine the characteristics of the observed teacher relative to Ryans' X, Y, and Z traits.

Activity:

Observation will be done either in a regular classroom or through the viewing of a tape. If a tape is used, the classroom performance of the ninth grade social studies teacher (economics) used for training on the MTAI sequence is recommended.

GLOSSARY OF OPERATIONAL DEFINITIONS FOR SECONDARY STUDENT TEACHER PERFORMANCE PROFILE

Criterion I--Understanding, Friendly vs. Egocentric, Aloof

Teachers who are described as having a high degree of the quality indicated by this criterion are characterized by such terms as friendly, understanding, tactful, good-natured, sympathetic, kindly, democratic, fair, approachable, gregarious, cooperative, genial, "looks on the bright side," enjoys the contact with his class. Superficial friendliness and mothering behavior should be recognized and given a low rating.

Criteria I, II, and III are virtually Ryans' XYZ factors.

Illustrative classroom behaviors: (The specific behaviors are considered to be parallel or synonymous. Students need not rate high on all examples to be rated high.)

Understanding, Friendly			vs.	Egocentric, Aloof		
1	2	3	4	5	6	7

1. Shows concern for a pupil's personal emotional problems and needs.	1. Recognizes only academic accomplishments of pupils; no concern for personal problems; scolds.
2. Tolerant of errors on part of pupils.	2. Completely unsympathetic with a pupils' failure at a task.
3. Finds good things in pupils to which to call attention.	3. Calls attention only to very poor work.
4. Listens encouragingly to pupils' viewpoint.	4. Impatient.
5. Behavior that invites friendliness from all pupils.	5. Stiff and formal in relations with pupils.
6. Goes out of way to be pleasant and/or to help pupils.	6. Hypercritical, fault finding, apart, removed from pupil activity.
7. Smiles and speaks to individual pupils; knows names.	7. Reserved and sober; doesn't know names of students.

Basic References:

Ryans, D. (1960). Characteristics of teachers: Their description, comparison, and appraisal. Washington, DC: American Council on Education.

Amidon, E. J., & Flanders, N. A. (1963). The role of the teacher in the classroom. Minneapolis: Paul S. Amidon & Assoc.

Criterion II--Planned, Organized, Responsible vs. Unplanned, Unorganized, Irresponsible

Teachers associated with a high degree of the quality indicated by this criterion are described as businesslike, systematic, responsible, consistent, definite, thorough, self-controlled, well-prepared.

Illustrative classroom behaviors:

Planned, Organized, Responsible				Unplanned, Disorganized, Irresponsible		
1	2	3	4	5	6	7

1. Has a detailed lesson plan; has materials that will be used.	1. Has no lesson plan; materials are not available when he needs them.
2. Tells class what to expect during period; has next assignment planned.	2. Class members see no organization in what they are doing; next assignment unplanned.
3. Objectives of the lesson are clearly discernible; proceeds with assurance.	3. Objectives not apparent; undecided as to next step.
4. Anticipates and prepares answers for student questions.	4. Is surprised and confused by questions.
5. Keeps discussion focused on objectives.	5. Easily distracted from matter at hand; course of action easily swayed by circumstances of the moment.
6. Is aware of school regulations and is guided by them.	6. Ignores school regulations.
7. Punctual.	7. Does not perform own duties on time.
8. Gives definite directions and checks on responses.	8. Assignments and directions indefinite; no evidence of follow-up.

To be Checked Out of Class

1. Does he understand and is he following directions given in seminar?	1. Vague about assignments and is not doing them well.
2. Meets obligations in record keeping.	2. Careless and evasive in record keeping.

Basic reference:

Ryans, D. (1960). Characteristics of teachers: Their description, comparison, and appraisal. Washington, DC: American Council on Education.

Criterion III--Stimulating, Imaginative, vs. Dull, Routine, Surgent Unimaginative

Teachers who possess high degrees of this quality are described as original, adaptable, stimulating, resourceful, imaginative, "puts pupils on their own," encourages pupil initiative. This is the Z factor described by Ryans.

Illustrative classroom behaviors:

Stimulating, Imaginiative, Surgent 1 2 3	vs. 4	Dull, Routine, Unimaginative 5 6 7
1. Highly interesting presentation; gets and holds attention.		1. Class seems bored, uninterested.
2. Clever and witty; enthusiastic, animated.		2. Pedantic, boring, phlegmatic, bored-acting.
3. Assignment challenging.		3. Fails to provide challenge.
4. Takes advantage of pupil interest.		4. Fails to capitalize on pupil interest.
5. Seems to provoke thinking; provokes strong esthetic appeal.		5. Class lacks enthusiasm; lacks interest.
6. Uses what seems to be original and relatively unique devices to aid instruction.		6. Uses routine procedures without variation.
7. Tries new materials or methods.		7. Does not depart from procedure to take advantage of a relevant question and situation.
8. Resourceful in answering questions; has many pertinent and novel illustrations available.		8. Not resourceful in answering questions or providing explanation.

Basic reference:

Ryans, D. (1960). Characteristics of teachers: Their description, comparison, and appraisal. Washington, DC: American Council on Education.

Criterion IV--Perceives Self as Competent vs. Perceives Self as Less Than Adequate

Teachers who possess a high degree of this quality tend to see themselves as liked, wanted, worthy, and able to do a good job of whatever they undertake. This is an attempt to rate self-confidence.

Illustrative classroom behaviors:

Perceives Self as Competent			vs.	Perceives Self as Less Than Adequate		
1	2	3	4	5	6	7
1. Speaks confidently; self-confident in relations with pupils.				1. Faltering, hesitant in speech, timid in relation with pupils.		
2. Takes mistakes and/or criticism in stride.				2. Disturbed and embarrassed by mistakes and/or criticism.		
3. Actions are reasonable, aggressive, and spontaneous.				3. Appears timid and shy.		
4. Poised.				4. Lacks poise.		
5. Accepts new tasks readily.				5. Offers excuses for not acting, delays.		

Basic references:

Combs, A. W. (Ed.). (1962). Perceiving, behaving, becoming, Yearbook. Washington, DC: Association for Supervision and Curriculum Development.

Combs, A. W. (1965). The professional education of teachers. Boston: Allyn & Bacon.

Bills, R. E. (1955, December). About people and teaching, Bulletin of the Bureau of School Service, Vol. XXVIII, No. 2. Lexington: University of Kentucky.

Criterion V--Has Mastery of Facts and Organizing Principles of Field vs. Has Only Minimum Knowledge of Field

A teacher who possesses a high degree of this quality recognizes important and significant knowledge in his field--concepts, generalizations, and relationships. He recognizes the organizing principles, or the basic ideas, of how things are related. This is sometimes referred to as the inquiry structure of the discipline.

Illustrative classroom behaviors:

Has Mastery of Facts and Organizing Principles of Field 1 2 3	vs.	Has Only Minimum Knowledge of Field 4 5 6 7
1. Presentation concerned with basic principles of the field.		1. Presentation simply reviews the facts from the text.
2. Organizes ideas, concepts, and principles on a recognizable priority system.		2. Presentation or discussion is not directed toward any central idea or generally accepted generalizations.
3. Draws examples and explanations from various sources and related fields.		3. Fails to enrich the class with illustrations familiar to students or from related fields.
4. Leads his class to form and test hypotheses.		4. Inaccurate or irrelevant comments; emphasizes mastery of unrelated facts.
5. Approach to subject is in spirit of discovery.		5. Approach to subject is one of routine examination of a given amount of materials.

Basic references:

Broudy, H. S., Smith, B. O., & Burnett, J. R. (1964). Democracy and excellence in American secondary education. Chicago: Rand McNally.

Bruner, J. (1962). The process of education. Cambridge, MA: Harvard University Press.

Hickey, A. E., & Newton, J. M. (1964). The logical basis of teaching: I. The effect of subconcept sequence on learning. Newburyport, MA: ENTELEK, Inc.

Classroom Observation Record

Teacher Characteristics Study

Teacher_____ No.____ Sex___ Class or Subject_____ Date_____

City_____ School_____ Time_____ Observer_____

PUPIL BEHAVIOR									REMARKS
1. Apathetic	1	2	3	4	5	6	7	N	Alert
2. Obstructive	1	2	3	4	5	6	7	N	Responsible
3. Uncertain	1	2	3	4	5	6	7	N	Confident
4. Dependent	1	2	3	4	5	6	7	N	Initiating
TEACHER BEHAVIOR									
5. Partial	1	2	3	4	5	6	7	N	Fair
6. Autocratic	1	2	3	4	5	6	7	N	Democratic
7. Aloof	1	2	3	4	5	6	7	N	Responsive
8. Restricted	1	2	3	4	5	6	7	N	Understanding
9. Harsh	1	2	3	4	5	6	7	N	Kindly
10. Dull	1	2	3	4	5	6	7	N	Stimulating
11. Stereotyped	1	2	3	4	5	6	7	N	Original
12. Apathetic	1	2	3	4	5	6	7	N	Alert
13. Unimpressive	1	2	3	4	5	6	7	N	Attractive
14. Evading	1	2	3	4	5	6	7	N	Responsible
15. Erratic	1	2	3	4	5	6	7	N	Steady
16. Excitable	1	2	3	4	5	6	7	N	Poised
17. Uncertain	1	2	3	4	5	6	7	N	Confident
18. Disorganized	1	2	3	4	5	6	7	N	Systematic
19. Inflexible	1	2	3	4	5	6	7	N	Adaptable

20. Pessimistic 1 2 3 4 5 6 7 N Optimistic

21. Immature 1 2 3 4 5 6 7 N Integrated

22. Narrow 1 2 3 4 5 6 7 N Broad

23. The Teacher helps the pupils develop understanding, knowledge, and skills.

1 2 3 4 5 6 7 N

24. The Teacher shows sensitivity to individual differences.

1 2 3 4 5 6 7 N

25. Teacher maintains good classroom discipline.

1 2 3 4 5 6 7 N

26. Teacher helps the pupils develop efficient study habits.

1 2 3 4 5 6 7 N

27. The Teacher provides a healthful and attractive classroom.

1 2 3 4 5 6 7 N

28. Teacher makes use of a variety of instructional materials.

1 2 3 4 5 6 7 N

GLOSSARY

(To be used with classroom observation record)

Pupil Behaviors

1. Apathetic-Alert Behavior

Apathetic	Alert
1. Listless.	1. Appear anxious to recite and participate.
2. Bored-acting.	2. Watch teacher attentively.
3. Enter into activities half-heartedly.	3. Work concentratedly.
4. Restless.	4. Seem to respond eagerly.
5. Attention wanders.	5. Prompt and ready to take part in activities when they begin.
6. Slow in getting under way.	

2. Obstructive-Responsible Pupil Behavior

Obstructive	Responsible
1. Rude to one another and/or to teacher.	1. Courteous, cooperative, friendly with each other and with teacher.
2. Interrupting, demanding attention; disturbing.	2. Complete assignments without complaining or unhappiness.
3. Obstinate; sullen.	3. Control voices.
4. Refuse to participate.	4. Receive help and criticism attentively.
5. Quarrelsome; irritable.	5. Ask for help when needed.
6. Engage in name-calling and/or tattling.	6. Orderly without specific directions from teacher.
7. Unprepared.	7. Prepared.

3. Uncertain-Confident Pupil Behavior

Uncertain	Confident
1. Seem afraid to try, unsure.	1. Seem anxious to try new problems or activities.
2. Hesitant; restrained.	2. Undisturbed by mistakes.
3. Appear embarrassed.	3. Volunteer to recite.
4. Frequent display of nervous habits, nail-biting, etc.	4. Enter freely into activities.
5. Appear shy and timid.	5. Appear relaxed.
6. Hesitant and/or stammering speech.	6. Speak with assurance.

4. Dependent-Initiating Pupil Behavior

Dependent	Initiating
1. Rely on teacher for explicit directions.	1. Volunteer ideas and suggestions.
2. Show little ability to work things out for selves.	2. Show resourcefulness.
3. Unable to proceed when initiative called for.	3. Take lead willingly.
4. Appear reluctant to take lead or to accept responsibility.	4. Assume responsibilities with-out evasion.

Teacher Behaviors

5. Partial-Fair Teacher Behavior

Partial	Fair
1. Repeatedly slights a pupil.	1. Treats all pupils approximately equally.
2. Corrects or criticizes certain pupils repeatedly.	2. In case of controversy, pupil allowed to explain his side.
3. Repeatedly gives a pupil special advantages.	3. Distributes attention to many pupils.
4. Gives most attention to one or a few pupils.	4. Rotates leadership impartially.
5. Shows prejudice (favorable or unfavorable) toward some social, racial, or religious groups.	5. Bases criticism or praise on factual evidence, not hearsay.
6. Expresses suspicion of motives of a pupil.	

6. Autocratic-Democratic Teacher Behavior

Autocratic	Democratic
1. Tells pupils each step to take.	1. Guides pupils without being mandatory.
2. Intolerant of pupils' ideas.	2. Exchanges ideas with pupils.
3. Mandatory in giving directions; orders to be obeyed at once.	3. Encourages (asks for) pupil opinion.
4. Interrupts pupils although their discussion is relevant.	4. Encourages pupils to make own decisions.
5. Always directs rather than participates.	5. Enters into activities without domination.

7. Aloof-Responsive Teacher Behavior

Aloof	Responsive
1. Stiff and formal in relations with pupils.	1. Approachable to all pupils.
2. Apart; removed from class activity.	2. Participates in class activity.
3. Condescending to pupils.	3. Responds to reasonable requests and/or suggestions.
4. Routine and subject matter only concern; pupils as persons ignored.	4. Speaks to pupils as equals.
5. Refers to pupil as "this child" or "that child."	5. Commends efforts.
	6. Gives encouragement.
	7. Recognizes individual differences.

8. Harsh-Kindly Teacher Behavior

Harsh	Kindly
1. Hypercritical; fault-finding.	1. Goes out of way to be pleasant and/or to help pupils; friendly.
2. Cross; curt.	2. Gives a pupil a deserved compliment.
3. Depreciates pupils' efforts; is sarcastic.	3. Finds good things in pupils to call attention to.
4. Scolds a great deal.	4. Seems to show sincere concern for a pupil's personal problem.
5. Loses temper.	5. Shows affection without being demonstrative.
6. Uses threats.	6. Disengages self from a pupil without bluntness.
7. Permits pupils to laugh at mistakes of others.	

9. Dull-Stimulating Teacher Behavior

Dull	Stimulating
1. Uninteresting, monotonous explanations.	1. Highly interesting presentation; gets and holds attention without being flashy.
2. Assignments provide little or no motivation.	2. Clever and witty, though not smart-alecky or wise-cracking.
3. Fails to provide challenge.	3. Enthusiastic, animated.
4. Lack of animation.	4. Assignments challenging.
5. Fails to capitalize on pupil interests.	5. Takes advantage of pupil interests.
6. Pedantic, boring.	6. Brings lesson successfully to a climax.
7. Lacks enthusiasm, bored acting.	7. Seems to provoke thinking.

10. Stereotyped-Original Teacher Behavior

Stereotyped	Original
1. Uses routine procedures without variation.	1. Uses what seems to be original and relatively unique.
2. Will not depart from procedure to take advantage of a relevant question or situation.	2. Tries new materials or methods.
3. Presentation seems unimaginative.	3. Seems imaginative and able to develop presentation around a question or situation.
4. Not resourceful in answering questions or providing explanations.	4. Resourceful in answering questions; has many pertinent illustrations available.

11. Apathetic-Alert Teacher Behavior

Apathetic	Alert
1. Seems listless; languid; lacks enthusiasm.	1. Appears buoyant; wide-awake; enthusiastic about activity of the moment.
2. Seems bored by pupils.	2. Keeps constructively busy.
3. Passive in response to pupils.	3. Gives attention to, and seems interested in, what is going on in class.
4. Seems preoccupied.	4. Prompt to "pick up" class when pupils' attention shows signs of lagging.
5. Attention seems to wander.	
6. Sits in chair most of time; no active part in class activities.	

12. Unimpressive-Attractive Teacher Behavior

Unimpressive	Attractive
1. Untidy or sloppily dressed.	1. Clean and neat.
2. Inappropriately dressed.	2. Well-groomed; dress shows good taste.
3. Drab, colorless.	3. Posture and bearing attractive.
4. Posture and bearing unattractive.	4. Free from distracting personal habits.
5. Possesses distracting personal habits.	5. Plainly audible speech; good expression; agreeable voice tone; good inflection.
6. Mumbles; inaudible speech; limited expression; disagreeable voice tone; poor inflection.	

13. Evading-Responsible Teacher Behavior

Evading	Responsible
1. Avoids responsibility; disinclined to make decisions.	1. Assumes responsibility; makes decisions as required.
2. "Passes the buck" to class, to other teachers, etc.	2. Concientious.
3. Leaves learning to pupil, failing to give adequate help.	3. Punctual.
4. Lets a difficult situation get out of control.	4. Painstaking; careful.
5. Assignments and directions indefinite.	5. Suggests aids to learning.
6. No insistance on either individual or group standards.	6. Controls a difficult situation.
7. Inattentive with pupils.	7. Gives definite directions.
8. Cursory.	8. Calls attention to standards of quality.
	9. Attentive to class.
	10. Thorough.

14. Excitable-Poised Teacher Behavior

Excitable	Poised
1. Easily disturbed and upset; flustered by classroom situation.	1. Seems at ease at all times.
2. Hurried in class activities; speaks rapidly using many words and gestures.	2. Unruffled by situation that developes in classroom; dignified without being stiff or formal.
3. Is "jumpy"; nervous.	3. Unhurried in class activities; speaks quietly and slowly.
	4. Successfully diverts attention from a stressful situation in classroom.

15. Uncertain-Confident Teacher Behavior

Uncertain	Confident
1. Seems unsure of self; faltering, hesitant.	1. Seems sure of self; self-confident in relations with pupils.
2. Appears timid and shy.	2. Undisturbed and unembarrassed by mistakes and/or criticism.
3. Appears artificial.	
4. Disturbed and embarrassed by mistakes and/or criticism.	

16. Disorganized-Systematic Teacher Behavior

Disorganized	Systematic
1. No plan for class work.	1. Evidence of a planned though flexible procedure.
2. Unprepared.	2. Well prepared.
3. Objectives not apparent; undecided as to next step.	3. Careful in planning with pupils.
4. Wastes time.	4. Systematic about procedures of class.
5. Explanations not to the point.	5. Has anticipated needs.
6. Easily distracted from matter at hand.	6. Provides reasonable explanations.
	7. Holds discussion together; objectives apparent.

17. Inflexible-Adaptable Teacher Behavior

Inflexible	Adaptable
1. Rigid in conforming to routine.	1. Flexible in adapting explanations.
2. Makes no attempt to adapt materials to individual pupils.	2. Individualizes materials for pupils as required; adapts activities to pupils.
3. Appears incapable of modifying explanation or activities to meet particular classroom situations.	3. Takes advantage of pupils' questions to further clarify ideas.
4. Impatient with interruptions and digressions.	4. Meets an unusual classroom situation competently.

18. Pessimistic-Optimistic Teacher Behavior

Pessimistic	Optimistic
1. Depressed; unhappy.	1. Cheerful, good natured.
2. Skeptical.	2. Genial.
3. Calls attention to potential "bad."	3. Jokes with pupils on occasion.
4. Expresses hopelessness of "education today," the school system, or fellow educators.	4. Emphasizes potential "good."
5. Notes mistakes; ignores good points.	5. Looks on bright side; speaks optimistically of the future.
6. Frowns a great deal; has unpleasant facial expression.	6. Calls attention to good points; emphasizes the positive.

19. Narrow-Broad Teacher Behavior

Narrow	Broad
1. Presentation strongly suggests limited background in subject.	1. Presentation suggests good background in subject; good scholarship suggested.
2. Does not depart from text.	2. Draws examples and explanations from various sources and related fields.
3. Fails to enrich discussions with illustrations from related areas.	3. Shows evidence of broad cultural background in science, art, literature, history, etc.
4. Shows little evidence of breadth of cultural background in such areas as science, art, literature, and history.	4. Gives satisfying, complete, and accurate answers to questions.
5. Answers to pupils' questions incomplete or inaccurate.	5. Is constructively critical in approach to subject matter.
6. Noncritical approach to subject.	

20. The teacher helps the pupils develop understanding, knowledge, and skills.

1. Pupils learn nothing.	1. Pupils learn much.
2. Information presented in an uninteresting manner.	2. Information developed with pupils in an interesting manner.
3. Facts presented without organization.	3. Facts presented in logical sequence.
4. Lesson unrelated to previous lessons or learnings.	4. Lesson built on previous understanding and interests.
5. No pupil participation.	5. Wide pupil participation and involvement.

21. The teacher shows sensitivity to individual differences.

1. Uniform presentations to entire class.	1. Evidence of grouping within the class.
2. Uniform assignments.	2. Group or individual assignments.
3. Instruction based entirely on text book.	3. Wide use of reference materials with differential assignments.
4. No personal interest in students.	4. Displays an interest in and has knowledge of students.

22. The teacher maintains good classroom discipline.

1. Classroom out of control.
2. Pupils antagonistic to teacher.
3. Learning reduced by classroom disorganization.
4. Chaos during recitation and work periods.
5. Pupils uncooperative.

1. Teacher in control at all times.
2. Pupil-teacher rapport.
3. Classroom organization conducive to learning.
4. Students display good study habits and budget time wisely.
5. Pupils cooperative.

23. The teacher helps the pupil develop efficient study habits.

1. Makes no attempt to help pupils develop study skills.
2. Gives little or no time for study during school day.
3. Fails to supervise students during study time.

1. Gives instruction and drill in in study skills.
2. Plans for and allows time for pupils to study during class time.
3. Gives careful supervision during study time.

ACHIEVEMENT TESTS

Effective Teaching and Achievement

Directions: Below are given 20 multiple choice questions related to the topic of effective teaching. This test is designed to determine how much you know about this topic. Decide which response best completes the statement or answers the question. Mark the appropriate letter for that response on the answer sheet.

1. In a classroom, if evidence suggests that students are not covering an adequate amount of criterion-relevant content in the course, teachers should examine
   a. the scope and sequence of the material studied.
   b. the quality of feedback provided students.
   c. the modes of instruction used.
   d. teacher attention to students' prior learning.

2. Which of the following is considered by most educators as the best way to insure good classroom management?
   a. Plan and administer a good plan for corporal punishment.
   b. Plan and organize for instruction carefully.
   c. Do not expect some students to learn.
   d. Stick to the basic skills or fundamentals in instruction.

3. Which of the following teacher behaviors has been identified with improving student achievement?
   a. warm, supportive, approachable characteristics
   b. strict, but fair, behaviors
   c. amount of training in the content area
   d. high expectations for student progress

4. Which of the following is an example of a divergent question?
   a. Where is the verb of this sentence?
   b. What are some ways to make rainbows?
   c. Does this journal entry go on the "debit" or the "credit" side?
   d. Which of the simple machines is the hammer an example?

5. How long should a teacher wait for a student to respond to a question?
   a. one second or less
   b. three to five seconds
   c. one-half minute
   d. one minute

6. Studies of the relationship of instructional time to achievement have shown that more achievement is observed if
   a. the school year is lengthened.
   b. the length of the school day is increased.
   c. class periods are lengthened from 45 to 55 minutes.
   d. students keep actively involved in the time allocated.

7. According to Benjamin Bloom, which of the following objectives represents a higher order learning task for a student?
   a. The student will name the five basic food groups.
   b. The student will summarize the arguments for and against slavery in the era of the Old South.
   c. The student will describe in his/her own words how a holograph works.
   d. The student will give an example of a split infinitive.

8. Strong self-concept in teachers has been identified primarily with development of students'
   a. achievement.
   b. attitudes.

9. Which of the following teacher traits is associated with development of students' high order thinking skills or cognitive processes?
   a. surgency
   b. enthusiasm
   c. flexibility
   d. strong self-concept

10. Teacher efficacy relates to their belief that
   a. all students should have equal educational opportunity.
   b. teachers can make a difference in the outcomes of their students.
   c. moral education is an important part of schooling.
   d. teachers teach as much by example as by formal instruction.

11. In which of the following formal classroom exchanges is more effective learning demonstrated?
   a. teachers talking to students
   b. students talking to teacher
   c. students talking to students

12. Attitudes toward a subject being taught belong in which of the following domains of learning?
   a. cognitive
   b. affective
   c. psychomotor

13. Which of the following characteristics has NOT been found to be associated with effective schools?
   a. fewer students from low socioeconomic backgrounds
   b. high expectations of students
   c. strong administrative support for teachers
   d. an orderly, safe learning atmosphere

14. Which one of the following statements about grouping is the most defensible?
    a. Homogeneous ability grouping generally promotes better achievement than does grouping according to heterogeneous ability.
    b. Heterogeneous ability grouping generally promotes better achievement than does grouping homogeneously.
    c. No difference in overall achievement is observed between students in homogeneous and heterogeneous ability groups.

15. A critical point in reteaching of material is to
    a. go slowly and stick to fundamentals the second time around.
    b. use new materials and different methods of instruction the second time around.
    c. use peer tutoring instead of teachers for instruction.
    d. test frequently.

16. If a student does not answer a question at first, the teacher should
    a. tell him/her the correct response and go on.
    b. restate the question or paraphrase it.
    c. go immediately to the next person and ask the question again.
    d. wait until the student responds.

17. In cooperative learning, which of the following outcomes is NOT advanced?
    a. student achievement
    b. group cohesion
    c. improved race relations
    d. creative output from individuals

18. Relative to the use of appropriate teaching methodology, achievement has been found to be enhanced more by
    a. use of discovery or inquiry methods of teaching.
    b. use of computer-assisted instruction.
    c. use of lecture-discussion type methods.
    d. use of varying instructional methods.

19. Development of higher order thinking skills may be impeded by
    a. placing too much emphasis on basic skills.
    b. planning for activity-based instruction.
    c. asking divergent questions.
    d. ability grouping within the classroom.

20. Which of the following variables have more relationship to student achievement?
    a. administrative practices
    b. school facilities
    c. curriculum offered
    d. teacher practices

APPENDIX 1

System for Determining Student Off-Task Behavior

Directions: As already noted, researchers such as Jane Stallings have established the importance of keeping students on task in order to facilitate achievement. In this exercise, we will study the procedure for establishing the off-task behavior of a classroom of students. First, a student's Off-Task Seating Chart similar to that given on the next page is drawn for the classroom to be visited. The location of seats and the names of seat occupants are clearly identified. After taking position in the room, the observer waits about five minutes to begin observations. Noting his/her starting time on a watch, the observer scans the students in the room in a systematic way, going up and down rows or tables. A decision is made whether the student at the moment scanned is socializing, uninvolved, or waiting for assistance. Codes to mark these behaviors are given on the diagram. If the student is on-task (doing what he/she is supposed to be doing), no mark is recorded. After the scan is completed, the observer waits until the end of five minutes of the beginning time. Then, another systematic scale of pupil behavior is made in a similar manner. This process is repeated until each student is observed six times. Then, the percentage of off-task behavior for each student is computed (number of off-task/6). Then, the percentage of off-task behavior for the class is determined by finding the mean off-task behavior for the group (sum of off-task percentages for total group/number of people in class).

STUDENTS OFF-TASK SEATING CHART

DATE: _____

ACTIVITY #1: _____ **TIME:** _____

ACTIVITY #2: _____ **TIME:** _____

Mrs. Smith	(front of classroom)		
Flora	Mark W	Betty	Joe
Jose U	Susan	Robert	Dona
Ursula S	Daniel	Ellen	Bill U
Sharon S	Jack	Lee	Mary

INSTRUCTIONS:

1. Fill in students' names in seats.
2. Fill in date, activity & time.
3. Complete a coding every 5 minutes.
4. Use one form for two codings (first: black ink, second time: red ink).

CODES:

S = Socializing
U = Uninvolved
W = Waiting for assistance

Source: Stallings Teaching and Learning Institute

APPENDIX 2

Tallying Types of Questions

Directions: Teachers ask many types of questions in class. Observe a teacher for 30 minutes in a classroom. In the space below, tally the number of convergent and divergent questions the teacher asks in that time period. Also, tally the number of types of questions asked relative to the function of the question as outlined below.

Tally of Convergent and Divergent Questions

Convergent:

Divergent:

Tally of Types of Questions

Directional or Procedural Questions

Social Questions

Disciplinary Questions

Questions for Evaluation Purposes

Questions for Concept Teaching or Probing

APPENDIX 3

Reward Systems Used in Class

Directions: Record the number of times the teacher used the following reward systems during a 30 minute session in a classroom observation.

Oral Praise for Individual in Front of Class

Oral Praise for Total Group

Oral Private Praise for Individual

Awarding of Smiley Faces or M & M's

Referring to Previous Contributions Made by Specific Student

Giving Specific Students Special Privileges

Issuing Good Grade to Individual for Contribution

Other

Grade Level Observed _____

Subject Area Lesson _____

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